

REMARKS

It is requested that this amendment be entered since it eliminates new matter objections/rejections as to the specification and claims. The total number of pending claims has been reduced and the claims have been amended to better distinguish over the art. Accordingly, the amendment should be entered since it places the application in condition for allowance and/or reduces the number of issues on appeal.

A second substitute specification is submitted in order to eliminate new matter issues based on prior amendments to explicitly support method claims. The second substitute specification does not contain any new matter. A computer-generated compare copy showing the changes made in the second substitute specification as compared with the previously filed substitute specification is enclosed. Added matter to the second substitute specification is underlined and deleted matter is struck.

Article claims 41-46 have been amended to more specifically reflect applicants' discovery that a united and combined decorative layer formed of an ink pattern and an absorbed non-solvent hardening resin enable selected, adjacently positioned, low and high gloss portions. The low and high gloss portions are provided in accordance with the variation in absorption of the non-solvent hardening resin composite by the ink pattern portions "containing inks that absorb greater and lesser amounts of

hardening resin". This amendment is particularly supported in paragraphs [0020], [0084] and [0087] of the original specification. Referring to paragraph [0084]:

It has been found by various confirmation tests that the ultraviolet ray hardening resin composite coated on the transfer film for recovering the adhesion of the print pattern on the water pressure transfer operation is easy or hard to be absorbed on the kinds of the pigment in the ink of the print pattern. For instance, since the high oil of absorption components such as the carbon black in the black easily absorbs the oil of the ultraviolet ray hardening resin composite, there is formed the low glossy pattern portion ... of pigments added is transfer. On the other hand, there is formed the high glossy pattern portion ... where the ink containing the low oil absorption component such as the pigments hard to absorb the ultraviolet ray hardening resin composite or the ink of low density is transferred because the ultraviolet ray hardening resin composite is not so much adsorbed by the pigments, but placed between the particles of the pigments and by the ultraviolet ray. The low glossy pattern portion ... in the print pattern.

In accordance with paragraph [0084], the other paragraphs cited above and the specification in general, the amended limitation in claim 41 is supported and correctly reflects the achievement of low and high glossy decorative layer portions as a result of the

variation in the absorption of the hardening resin by the ink. Absorption is indicated or predicted by the oil absorption characteristics of the ink.

Accordingly, in the decorative layer, locations of absorption of relatively greater amounts of the hardening resin by the ink print pattern result in a less glossy appearance as compared with the appearance of decorative layer locations at ink pattern portions having absorbed a lesser amount of hardening resin. In this manner, the positioning of low gloss and high gloss locations in the decorative layer is determined by the ink compositions in various ink pattern portions.

A matting component may be added to the hardening resin to reduce the level of glossiness as discussed in paragraph [0086] of the original specification. The matting component more effectively reduces the glossiness of the high glossy portion, and the overall difference between the two portions tends to be reduced.

Also, the penetration and absorption of the ink pattern by the hardening resin to form a united or combined decorative layer enables the elimination of a protective topcoat since the decorative coating has sufficient chemical and mechanical surface protection as discussed in paragraph [0079] of the original specification.

The matters raised in the Office action are discussed below in the same order as presented by the examiner.

Applicant's Attorney acknowledges the election/restriction requirement as summarized in paragraph 1. No method claims are of record.

In reply to the new matter rejection in paragraph 2 of the action, a second substitute specification is submitted wherein explicit disclosure of method claims *per se* is deleted as requested by the examiner. As noted above, claim 41 has been amended to refer to "adjacent ink pattern portions containing inks that absorb greater and lesser amounts of hardening resin".

The support for the preference of certain inks to absorb hardening resin is discussed above together with the resulting gloss variations.

In response to the rejection under 35 USC 112, first paragraph, claim 41 has been amended to more specifically reflect the disclosures in the application relating to the preferential absorption of hardening resin by selective inks. This is discussed in detail above, and it is believed that the claim rejection is overcome for the foregoing reasons.

The rejection of claims 33-35 and 40 under 35 USC 112, second paragraph is moot since the claims are cancelled.

It is respectfully requested that the Examiner reconsider and withdraw the rejection of the claims under 35 USC 102(b) as anticipated by, or in the alternative, under 35 USC 103(a) as obvious over JP 05-016598 to Atake et al. with evidence from US patent 4,029,831 to Daunheimer et al. in view WO 00/32666 of

Meisenberg et al.

The rejection under 35 USC 102(b) is in error since the examiner acknowledges that Atake et al. does not disclose the "non-solvent" nature of the resin. Because Atake et al. fails to disclose each and every limitation in claim 41, Atake et al. can not anticipate the claims.

Turning to the rejection under 35 USC 103(a), claims 41-46 more clearly define the article wherein low and high gloss portions of a decorative layer are achieved in accordance with the variation of the absorption of the hardening resin composite by the ink. That is, the ink print pattern is provided with ink portions containing inks that absorb relatively greater and lesser amounts of hardening resin in order to cause, respectively, low and high gloss portions in the decorative layer. This is never disclosed or suggested by Atake et al.

At page 5 of the action, the Examiner incorrectly alleges Atake et al. paragraph {0014} discloses that "the amount of pigment found within the composition controls the hardening of the radiation ionizing hardening resin". Applicants' Japanese counsel advises that paragraph [0014] does not contain such a disclosure. This paragraph provides: "The printed pattern layer M may be composed of a printing means having the character (property) of interrupting or absorbing ionizing radiation ray or controlling hardening of the ionizing radiation ray hardening resin," Paragraph [0014] does not state that the amount of

pigment controls the hardening of the radiation ionizing hardening resin.

Applicants' Japanese counsel further advises that the last sentence of paragraph [0014] provides: "Therefore, the printing ink containing a lot of opaque pigments can be used as printing ink which has the character (property) of controlling hardening of ionizing radiation hardening."

In view of the last sentence in paragraph [00014] and Fig. 1 in Atake et al., it is understood that the ink controls the permeation of light into the hardening resin located below the ink by means of its translucency, but not amounts of hardening resin absorption as in the present invention. Accordingly, the structure of the Atake et al. decoration layer is different from the claimed layer. There is no suggestion of the claimed decoration layer and article.

Further, Atake et al. teaches away from the claimed invention by achieving gloss variation through opaque variation to regulate cure rate. Atake et al. does not suggest the claimed invention to one skilled in the art, but rather, teaches away from the regulation of hardening resin absorption to achieve gloss variation.

In fact, the Atake et al. regulation of hardening rate cure via a superposed opaque layer is an entirely different approach to the problem solved by the present invention and results in an entirely different article. As shown in Atake et al. Figs. 1 and

3, the opaque layer is superposed on the ink layer and does not permeate the ink layer. Thus, Atake et al. never suggests or contemplates the absorption of the hardening resin to provide the claimed "a united layer of a non-solvent ultraviolet ray hardening resin composite absorbed in an ink pattern".

In accordance with the invention, the achievement of greater and lesser amounts of hardening resin absorption cannot be accomplished unless the hardening resin fully permeates into the ink layer to form the united layer. Atake et al. therefore fails to suggest and actually teaches away from the claimed united layer with hardening resin absorption to achieve gloss variation.

Furthermore, it should be appreciated that if there is glossy variation on the surface of the Atake et al. article, it is between the portion having an ink layer and a portion not having an ink layer. Again, this is different from the present invention because glossy variation exists between portions having ink layers with different amounts of absorbed hardening resin.

For least the foregoing reasons, claims 41 - 46 presently of record are patentably distinguished over the cited art.

Daunheimer et al. is cited regarding the UV inhibitor and curing rate, and does not remedy the deficiencies of the references discussed above.

Meisenberg et al. is cited in respect to its teachings of a coating agent, and does not remedy the deficiencies of the references discussed above. Meisenberg et al. discloses a

coating agent for top-coating. The coating agent is adapted to be cured by optical-chemical reactive property lights or electronic beams. This reference neither teaches nor suggests the use of the agent together with an ink layer, the solution of the ink and the relationship of the agent to the ink such as imparting gloss to the transfer layer based on the absorption of hardening resin by the ink.

For these additional reasons, claims 41 - 46 presently a record are distinguished over the prior art.

For the same reasons as set forth above comment is requested that the examiner reconsider and withdraw the rejection of claim 45 under 35 USC 103(a) as being unpatentable over JP 05-016598 to Atake et al. et al. with evidence from US patent 4,029,831 to Daunheimer et al. in view WO 00/32666 of Meisenberg et al. as applied to claim 41 above, and further in view of Wypych (Book).

This book is merely cited to teach the use of black pigment in ink positions. Obviously, this well-known fact is not remedy the above deficiencies of the applied prior art patents.

For all of the foregoing reasons, claims 41 - 46 are distinguished over the prior art and art and condition for final amounts in such action is requested.

If there are any fees required by this amendment, please charge the same to Deposit Account No. 16-0820, Order No. KIK-41079.

Respectfully submitted,

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